Forest Insect & Disease Management

Report No. 80-3-30

Issued on: 6/30/80

AERIAL DETECTION SURVEY OF FOREST INSECT AND DISEASE ACTIVITY, DANIEL BOONE NATIONAL FOREST

LAND OWNERSHIP OR SURVEY AREA: Daniel Boone National Forest

STATE: Kentucky

AREA WITHIN SURVEY BOUNDARY: 1,896,529 acres

DATE: June 19, 1980

PERCENT COVERAGE: 75%

AIRCRAFT: Aero Commander

CREW: E. T. Wilson, T. P. Russell

REPORT PREPARED BY: E. T. Wilson

SURVEY OBJECTIVES

The aerial survey was flown to detect and delineate areas of defoliation of deciduous trees by insect pests on the Daniel Boone National Forest.

SURVEY RESULTS

Extensive light scattered defoliation covering approximately 75,000 acres was observed on the Stanton Ranger District, encompassing Estill and Powell Counties. Light scattered defoliation, but much less extensive covering 10,000 acres, was noted in Bath County on the Morehead Ranger District.

Ground surveys of the defoliated area by Rich Dorsett, Entomologist, State Pest Control, Division of Forestry, Kentucky, revealed the host trees attacked were exclusively white oak, *Quercus alba*, and the causal agent a noctuid caterpillar, family Noctuidae. Larvae were collected and referred to the insect museum for identification.

During the field examination many desiccated larvae were observed and the abundant larval mortality was attributed to a fungus occurring within the larval population. A large number of pentatomid bugs were observed in the defoliated areas. However, the significance of this with the declining larval population has not been determined.

CONCLUSIONS

The intensity of defoliation was less in 1980 than 1979 and the larval population is declining.

For any additional information, contact

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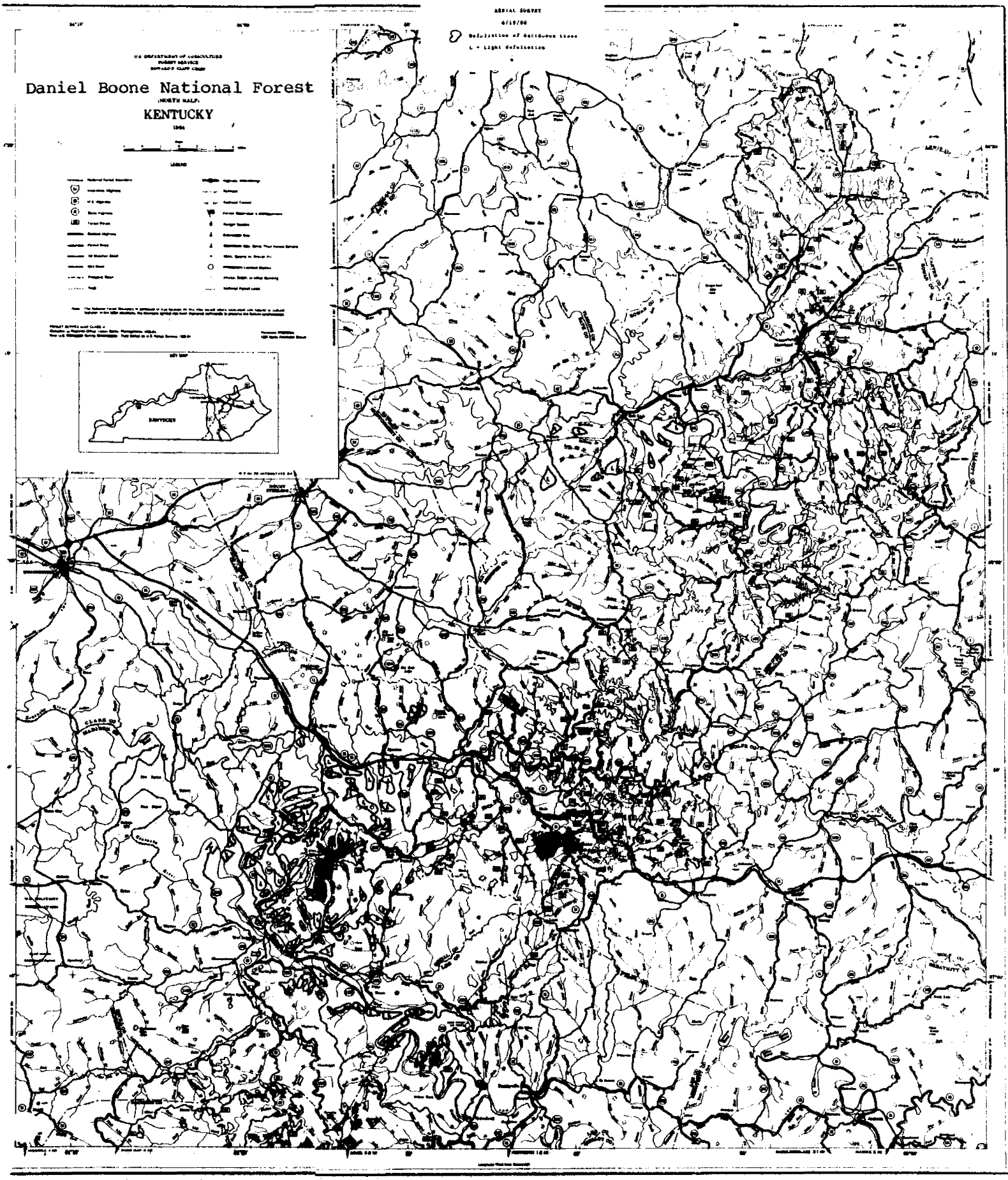

Figure 1. Location of hardwood defoliation on the Daniel Boone National Forest, June 1980.